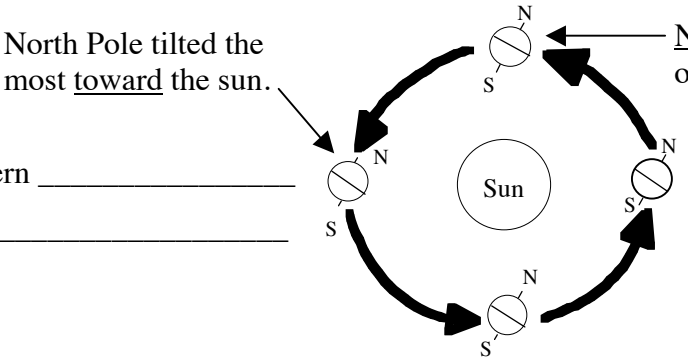
Name_____ Date_____ Period _____

Practice Quiz: Earth, Sun, and Seasons _____

I. Seasons Diagram. Label the proper solstices and equinoxes <u>for the northern hemisphere</u> on the diagram below. **You should write 2 words into each label**. "Northern" is already given in each. For example, one of them would be *Northern Winter Solstice*. They will also be demonstrated with globes. Be careful and pay attention to the hints given below.

4. Northern _____

_____



North Pole tilted the most <u>toward</u> the sun.

<u>Neither</u> Pole tilted toward or away from the sun.

1. Northern _____

_____

3. Northern _____

_____

2. Northern _____

_____

II. A. Matching. Write the correct letter of the term that best matches each description. <u>One letter will be used twice. All letters will be used.</u>

_____ 1. Day when one pole is tilted the most towards the sun

_____ 2. Spinning of an object around its axis

_____ 3. Movement of one object around another

_____ 4. Imaginary line that passes through a planet's center and poles

_____ 5. One cause of day and night

_____ 6. Day when neither pole is tilted toward or away from the Sun

A. equinox

B. solstice

C. revolution

D. axis

E. rotation

II. B. Matching. Identify which of the northern solstice(s) and/or equinox match each statement below. Use the following abbreviations. Some will be used more than once.

NSS Northern Summer Solstice
NWS Northern Winter Solstice
EQ Equinox
ALL All of them

_____ 1. Day when the highest angle of light and largest number of hours of daylight cause a large amount of heating in the **Southern Hemisphere**.

_____ 2. Day when all latitudes have 12 hours of daylight and 12 hours of night.

_____ 3. Day when the Earth is almost at its farthest from the sun.

_____ 4. North Pole points toward North Star (Polaris).

_____ 5. Day when the Northern Hemisphere has most hours of daylight with the most intensity.

_____ 6. Day when the North Pole is tilted most away from the sun.

_____ 7. Day when sunlight is most intense at the equator.

_____ 8. Same day as the Southern Summer Solstice.

III. True or False. If the statement is true, write "True" on the line provided**.** **If the statement is false, correct the underlined word(s)** to make it a true statement. **Write the correction on the line provided.** Read carefully!

_____ 1. The Earth's axis is on a tilt of 23.5°.

_____ 2. The Earth is heated by light from the Moon.

_____ 3. One complete rotation of Earth takes 365.25 days.

_____ 4. The Sun, Moon and zodiac constellations are all along the same path in the sky called the ecliptic. (From StarLab)

VII. Multiple Choice. Write the correct letter in the space provided next to each question.

_____ 1. When the Northern Hemisphere experiences the season of spring, the Southern Hemisphere experiences the season of

A. summer B. autumn
C. spring D. winter

_____ 2. Seasons are caused in part by

A. the distance between Earth and the sun B. Earth's tilt
C. the angle of the sun's rays striking Earth's surface D. both B and C

_____ 3. The sun, moon and stars appear to rise and set each day due to

A. Earth's revolution around the sun. B. Earth's rotation.
C. the moon's rotation around Earth. D. the tilt of Earth's axis.

_____ 4. We can find the North Star (Polaris) by

A. using the two pointer stars in the Big Dipper B. looking where the sun set
C. using Orion's belt as pointer stars D. looking opposite to the sun

VIII. Short Answer. Answer these on a separate piece of paper.
Answer each question in complete sentences. Draw sketches.

1. a) Describe, sketch, and explain the two factors that cause the cycle of day and night.

   b) Describe and sketch one of the activities or labs that demonstrated this.

2. a) Explain why the Poles are colder than the Equator. Include the angle and intensity of light.

   b) Describe and sketch one of the activities or labs that demonstrated this.

3. a) Explain why winter is colder than summer. Include (i) the tilt of Earth's axis and how the tilt affects (ii) the angle and intensity of light and(iii) number of hours of daylight.

   b) Describe and sketch one of the activities or labs that demonstrated this